

**ZERO CENTERLINE TOOLHOLDER ASSEMBLY****ABSTRACT OF THE DISCLOSURE**

A zero centerline toolholder assembly includes a cutting insert mounted to a toolholder. The center, RC, of the nose radius of the cutting insert is aligned with or lies on a centerline, LT, of the toolholder. The centerline, LT, of the toolholder may be also aligned with a rotational axis, CT<sub>2</sub>, of a tool spindle. The tool spindle is tilted at an angle with respect to an axis, P, that is substantially perpendicular to a longitudinal axis, LW, of a work piece. As a result of the zero centerline configuration, the radial component of the torque load on the toolholder is virtually eliminated. In addition, the toolholder assembly has a shorter tool length, thereby reducing deflection load on the toolholder.